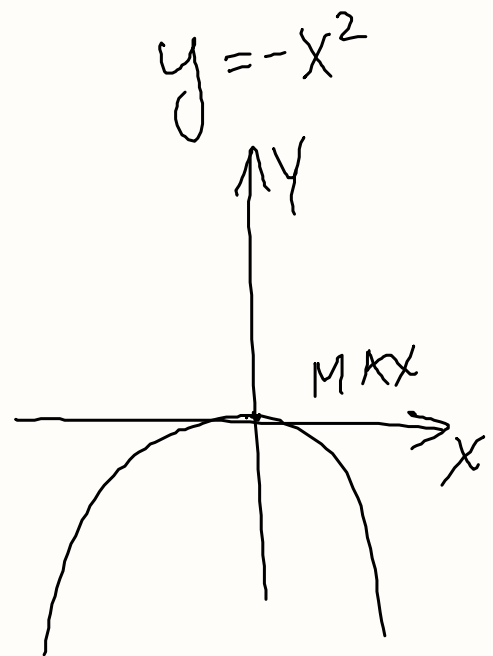
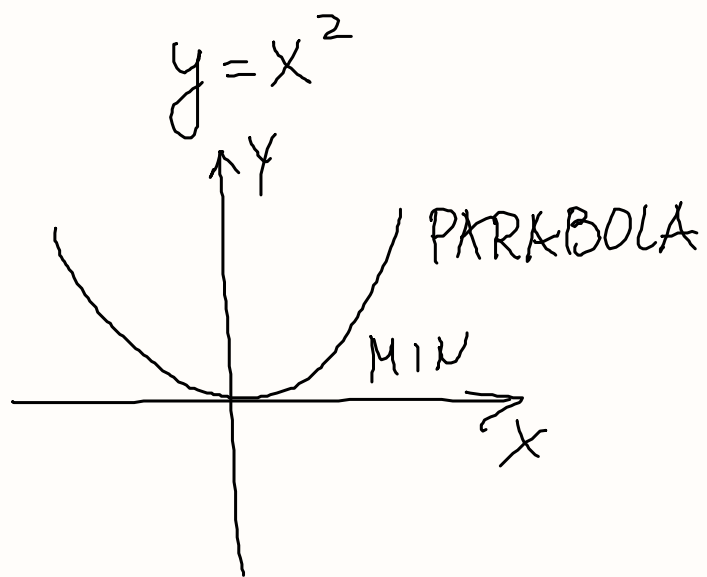
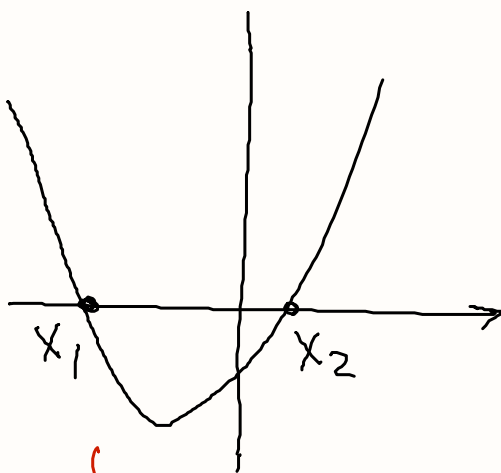


QUADRATIC FUNCTIONS



$$y = ax^2 + bx + c$$



x_1 AND x_2 - SOLUTIONS
OF THE EQUATION ($y=0$)

$$y = x^2 + \underline{5}x + \underline{6}$$

$$6 = 1 \cdot 6$$

$$6 = (-1)(-6)$$

$$6 = \underline{2} \cdot 3$$

$$6 = (-2)(-3)$$



$$2 + 3 = 5$$

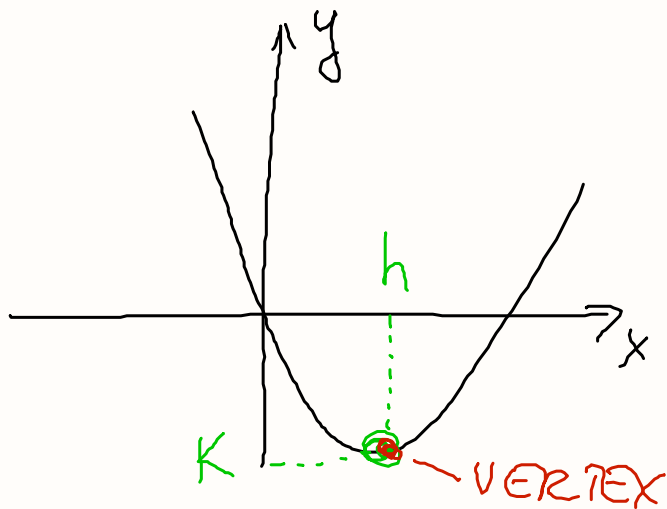
$$y = (x+2)(x+3)$$

$$x+2=0$$

$$x_1 = -2$$

$$x+3=0$$

$$x_2 = -3$$



$$y = ax^2 + bx + c$$

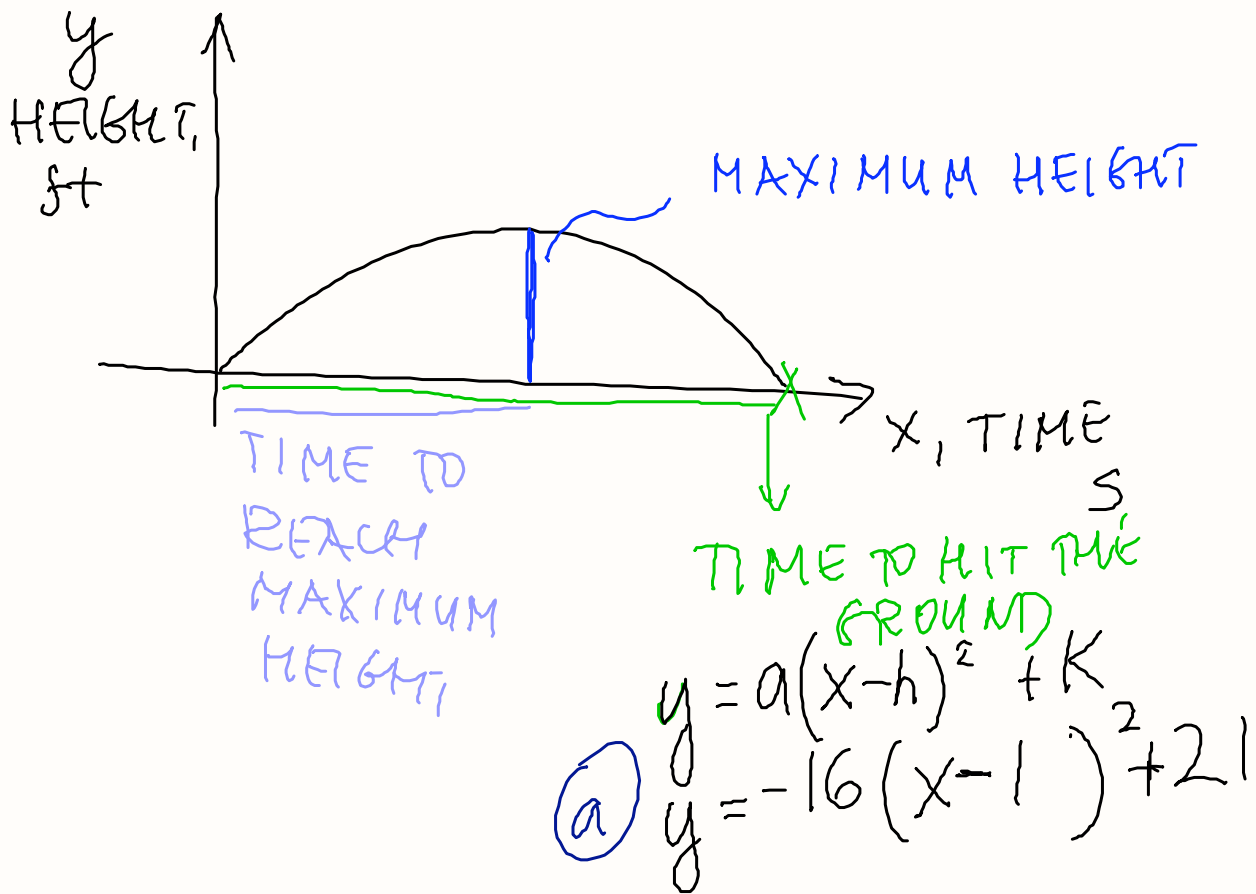
EQUATION IN VERTEX FORM

$$y = a(x - h)^2 + k$$

$$y = \underline{2}x^2 + 12x + 13 ; \quad y = \underline{2}(x - \textcolor{blue}{-3})^2 - \textcolor{blue}{5}$$

$$y = 2(x + 3)^2 - 5$$

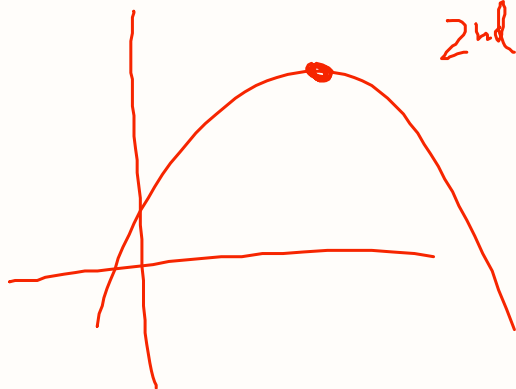
CONSTRUCTED RESPONSE



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WINDOW $X_{\min}=0$ $X_{\max}=50$

$Y_{\min}=0$ $Y_{\max}=6500$
2nd TRACE
MAX



VERTEX FORM

(a) X

(b) y

(c) 2nd

GRAPH

$x = ?$
 $y = 5424$